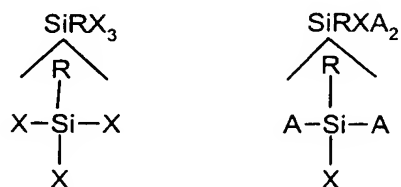


FIGURE 1: REPRESENTATIVE ORGANOSILANES



R = functional group of chemical interest
A = non-reactive group
X = hydrolyzable group

FIGURE 2: HYDROLYSIS OF AN ORGANOSILANE TO PRODUCE AN ORGANOSILANOL

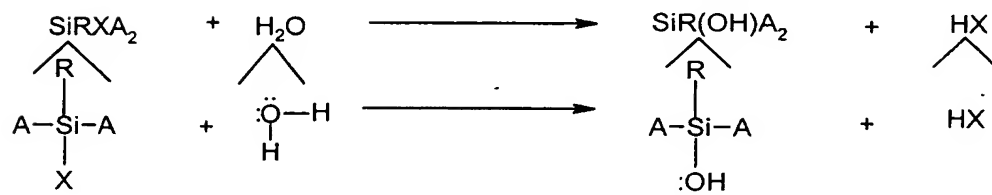


FIGURE 3: SILANOL CONDENSATION REACTION

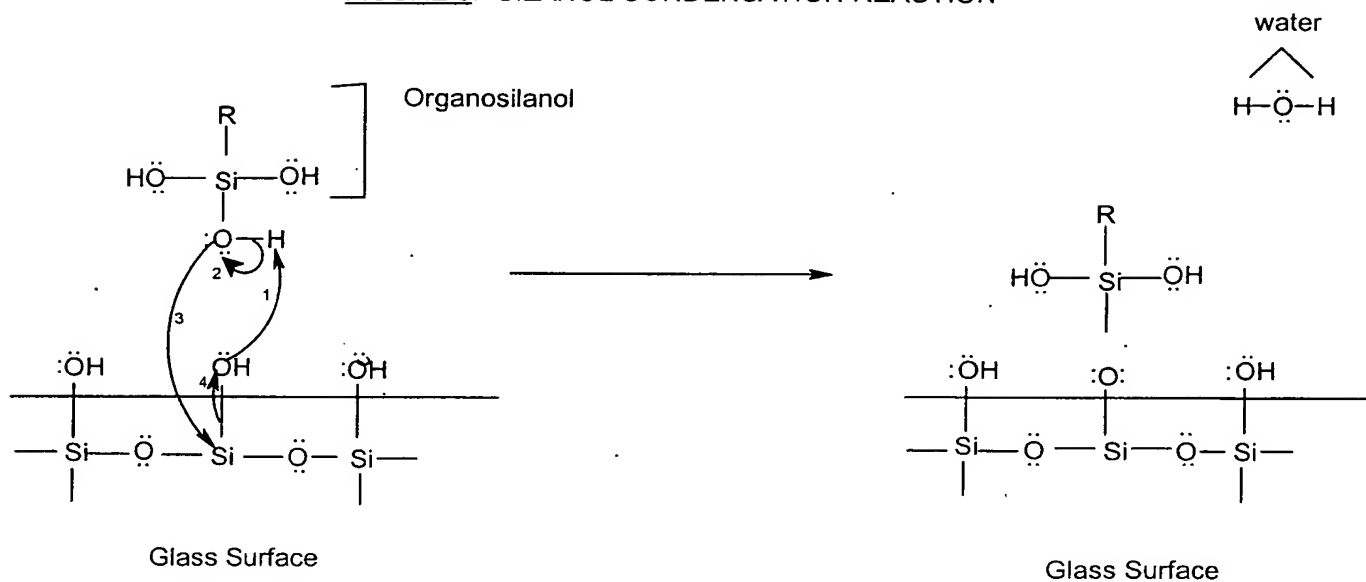
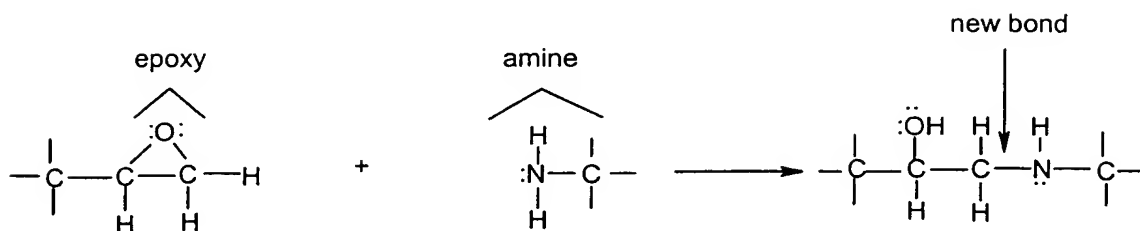


FIGURE 4: REACTIONS OF EPOXY GROUPS

A: With an amine group



B: With a carboxyl group

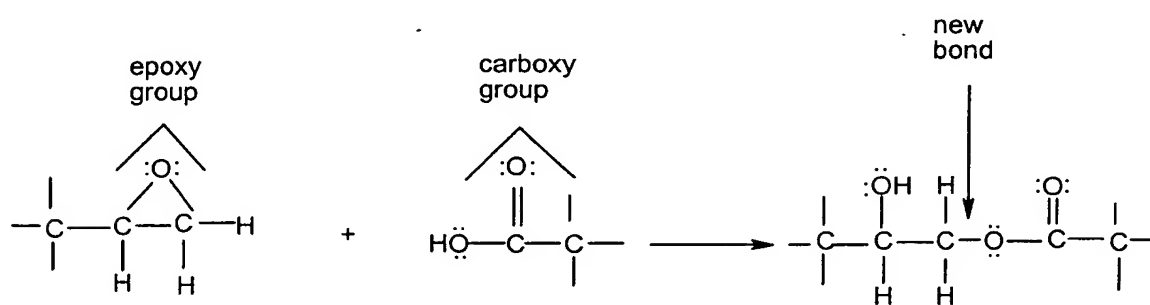


FIGURE 5A: Bond using 3-Amino propyl triethoxysilane and polyamido polyamine epichlorohydrin polymer.

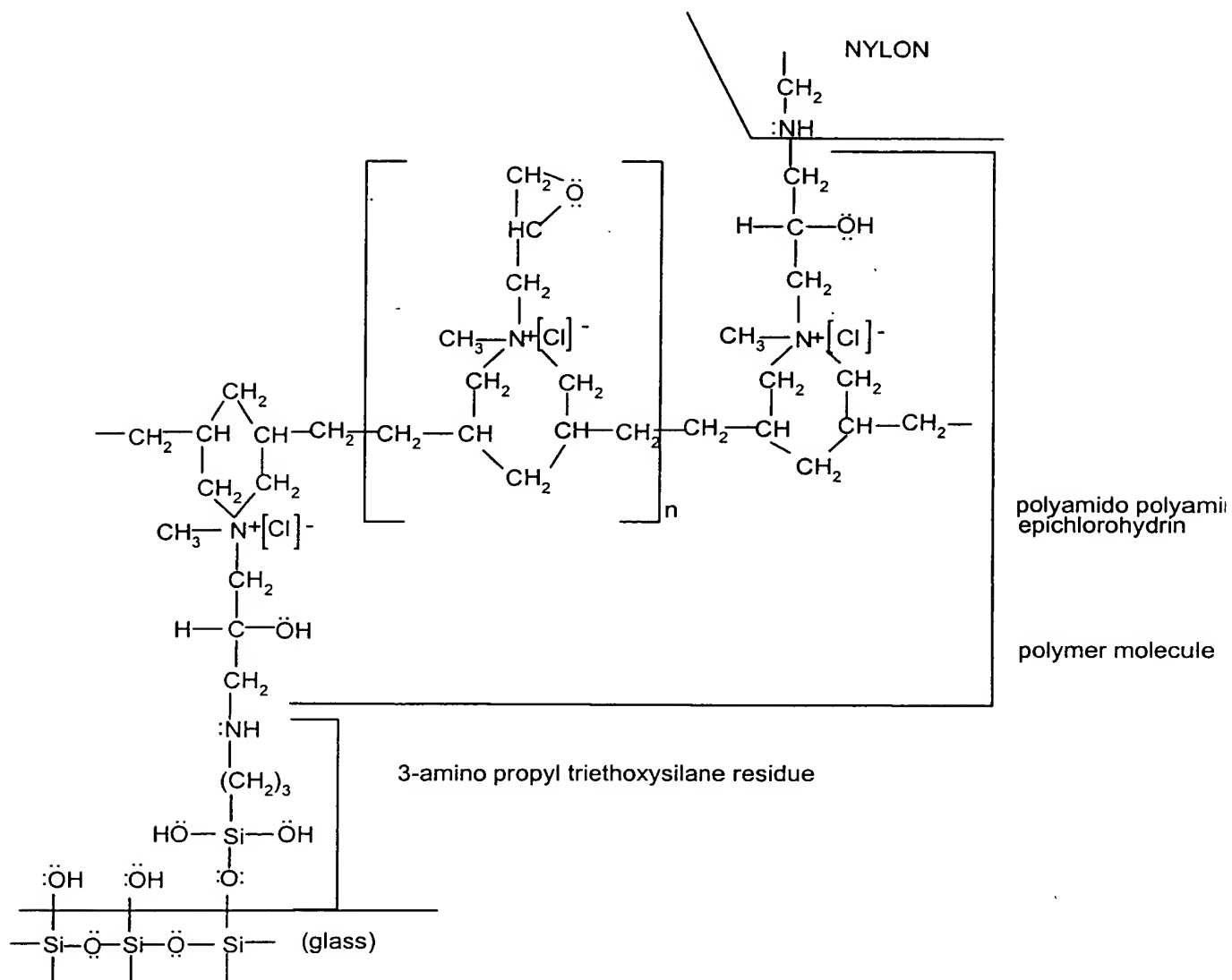


FIGURE 5B: Bond using 10-carbomethoxy-decyl-dimethyl chlorosilane and polyamido polyamine epichlorohydrin polymer.

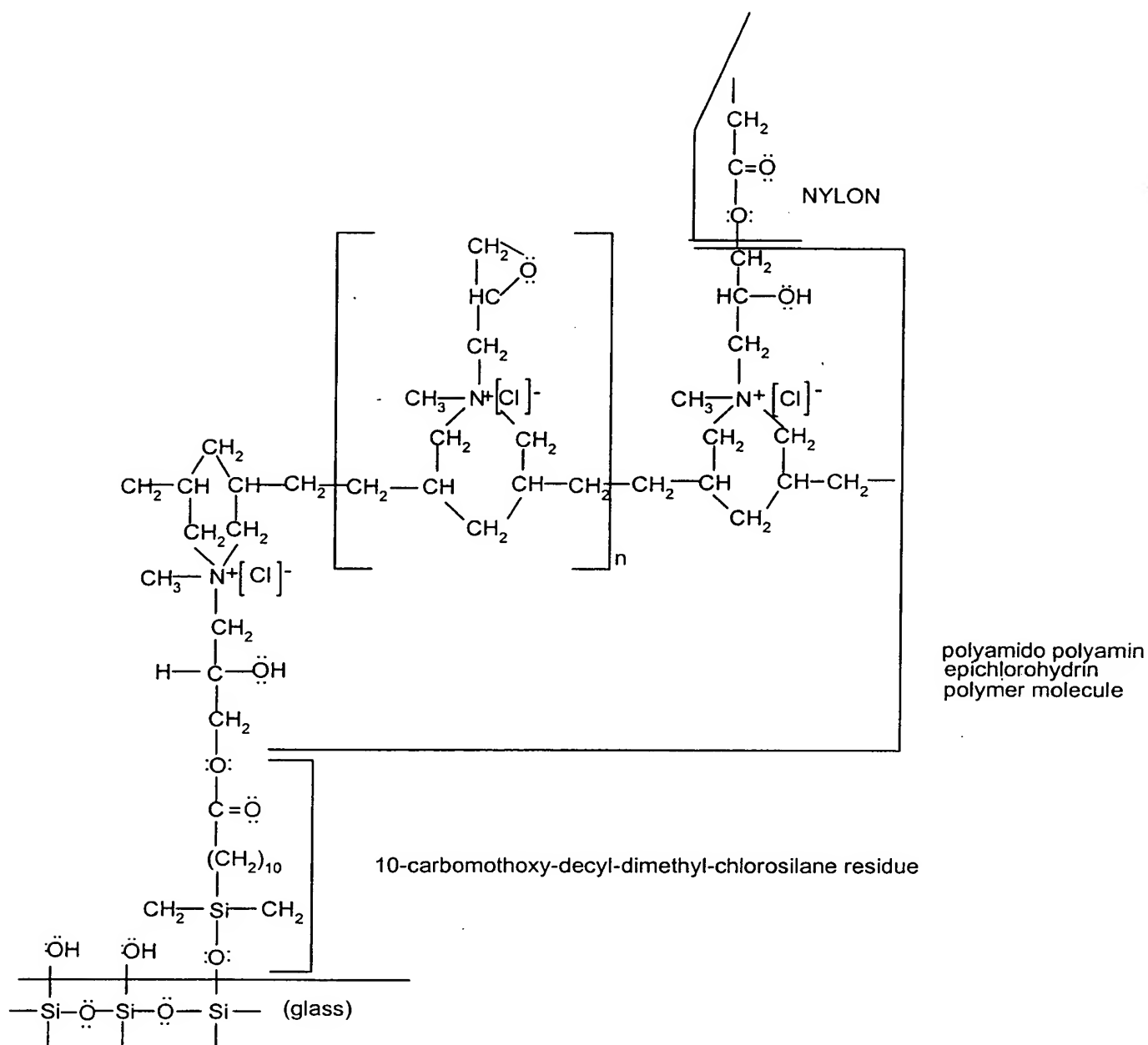
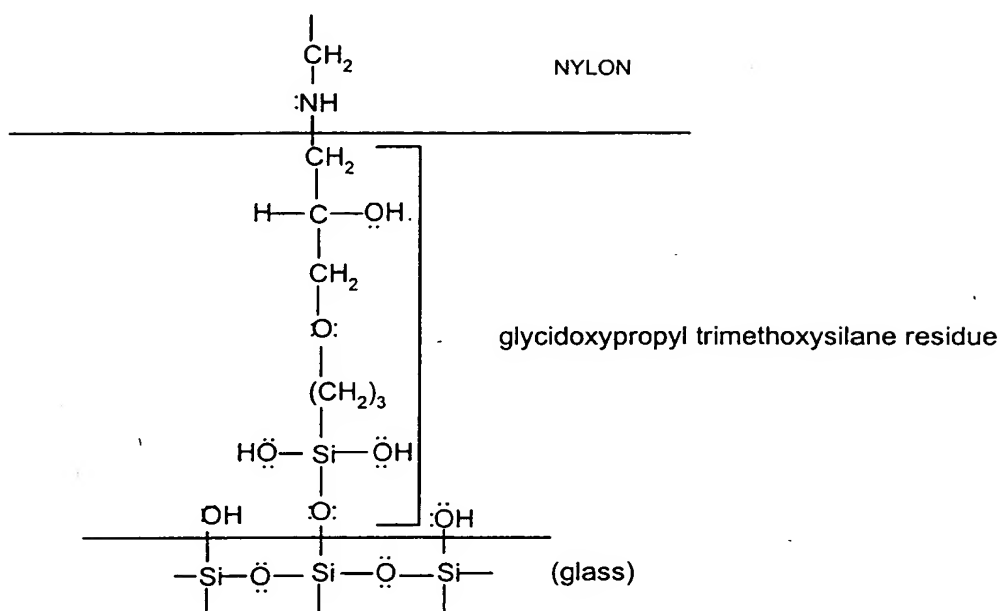


FIGURE 5C: Bond using glycidoxypopyl trimethoxysilane



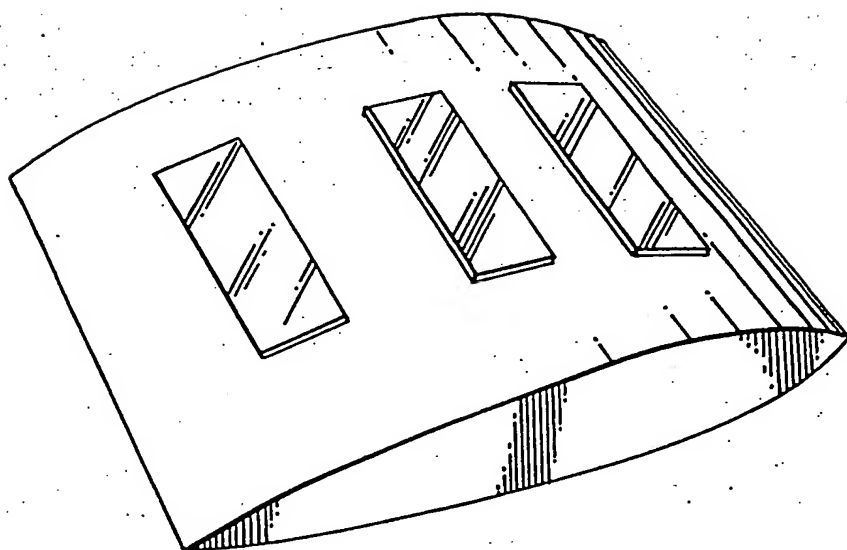


FIG. 6A

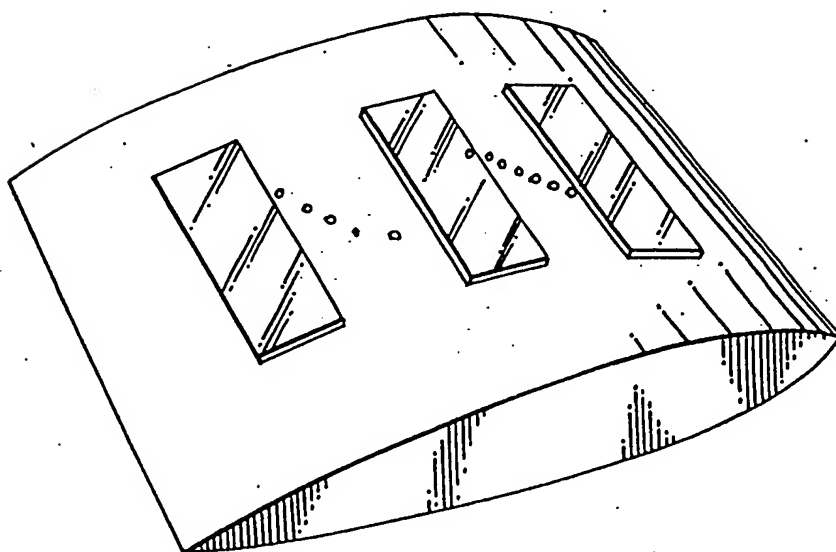


FIG. 6B

FIG. 6C

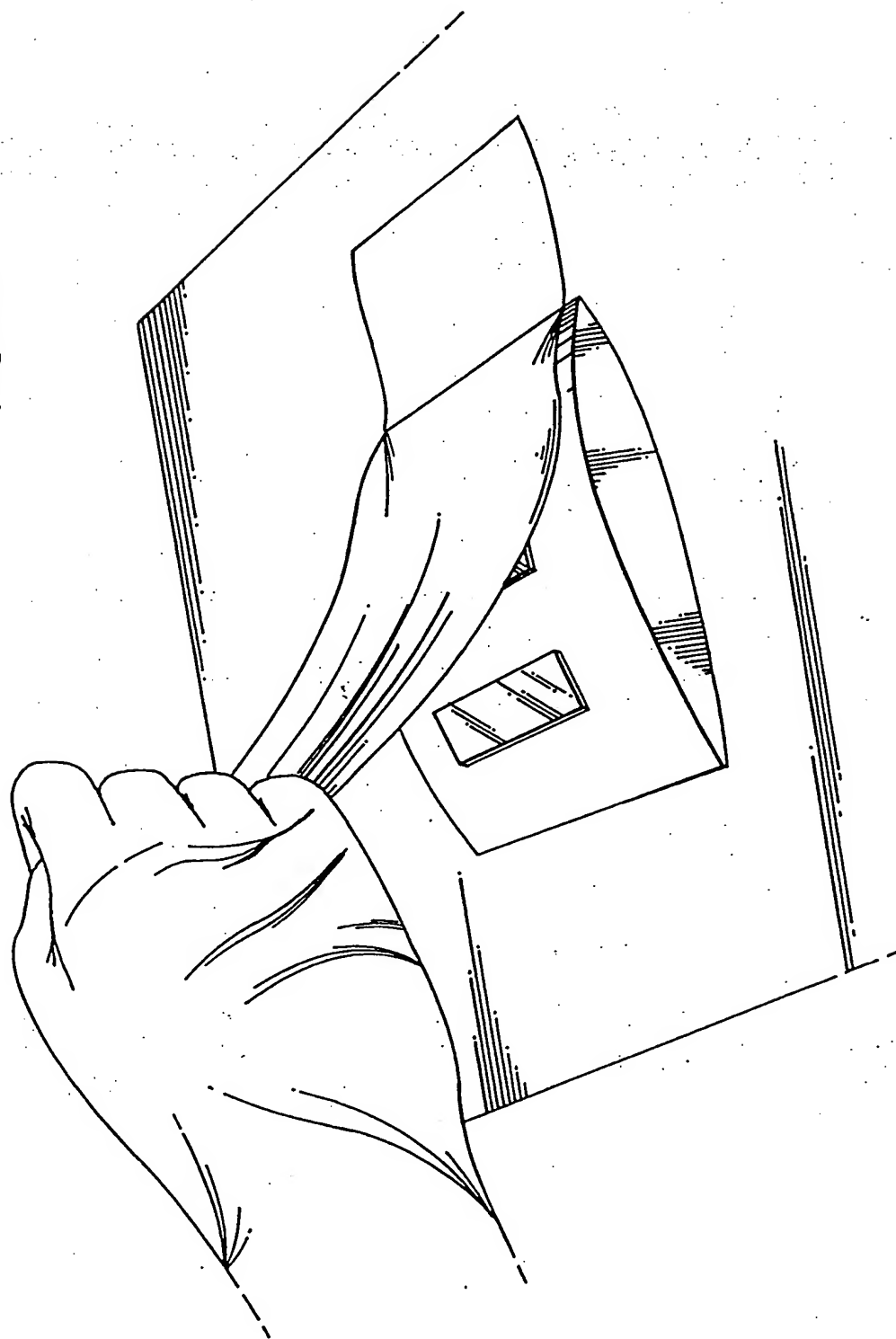
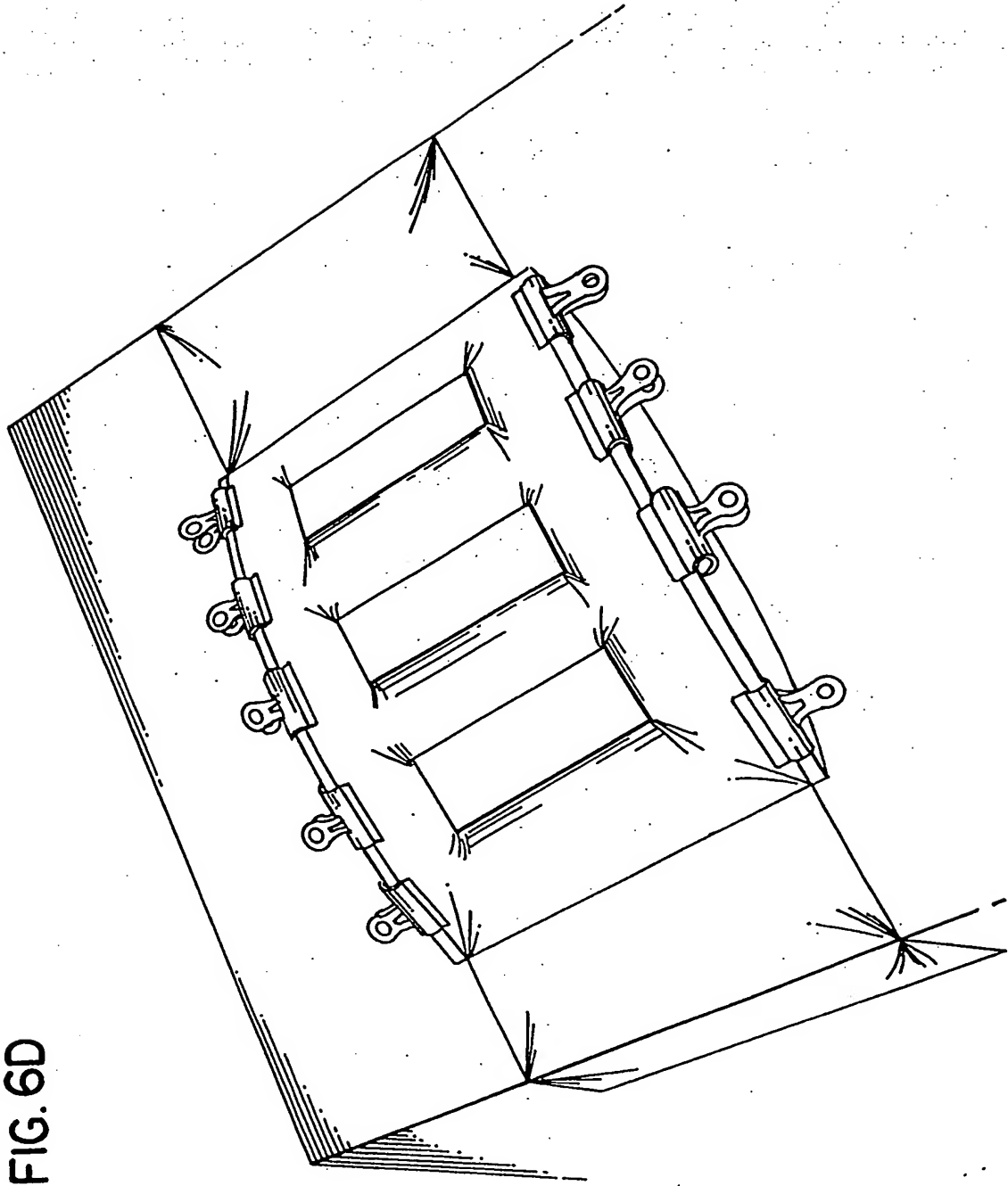


FIG. 6D



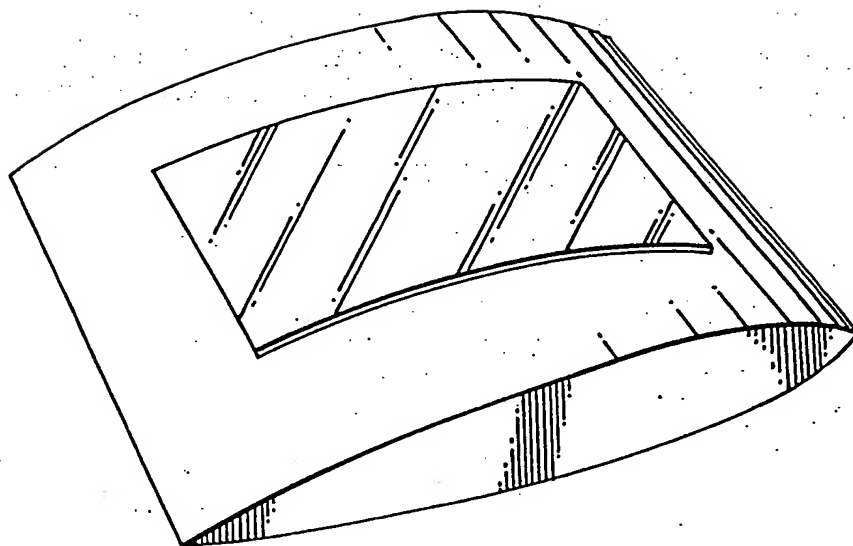


FIG. 7A

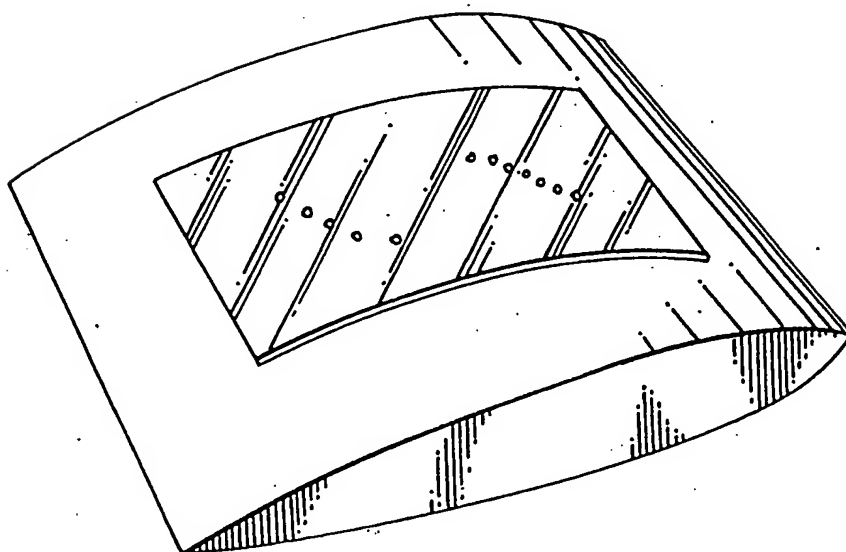
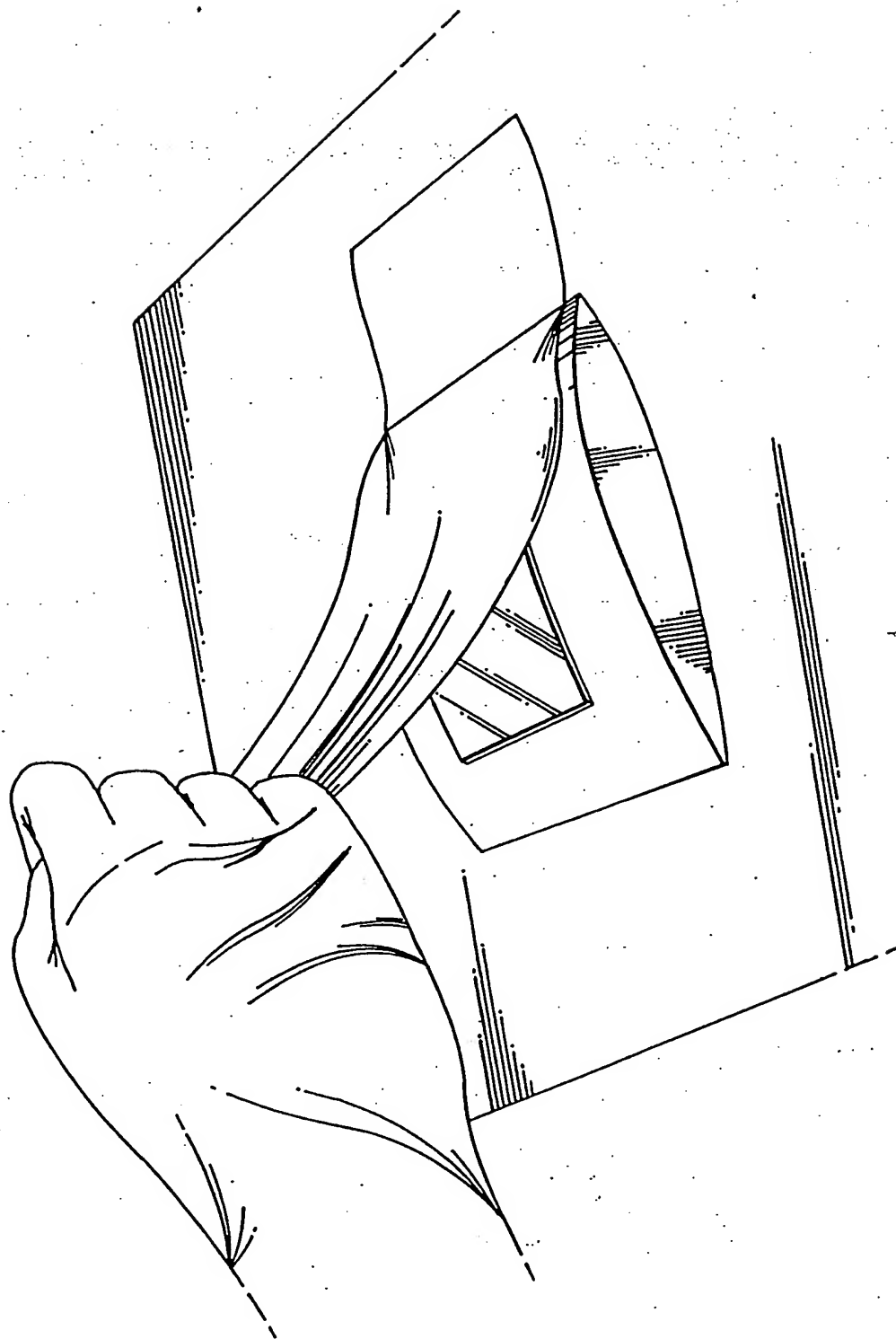


FIG. 7B

FIG. 7C



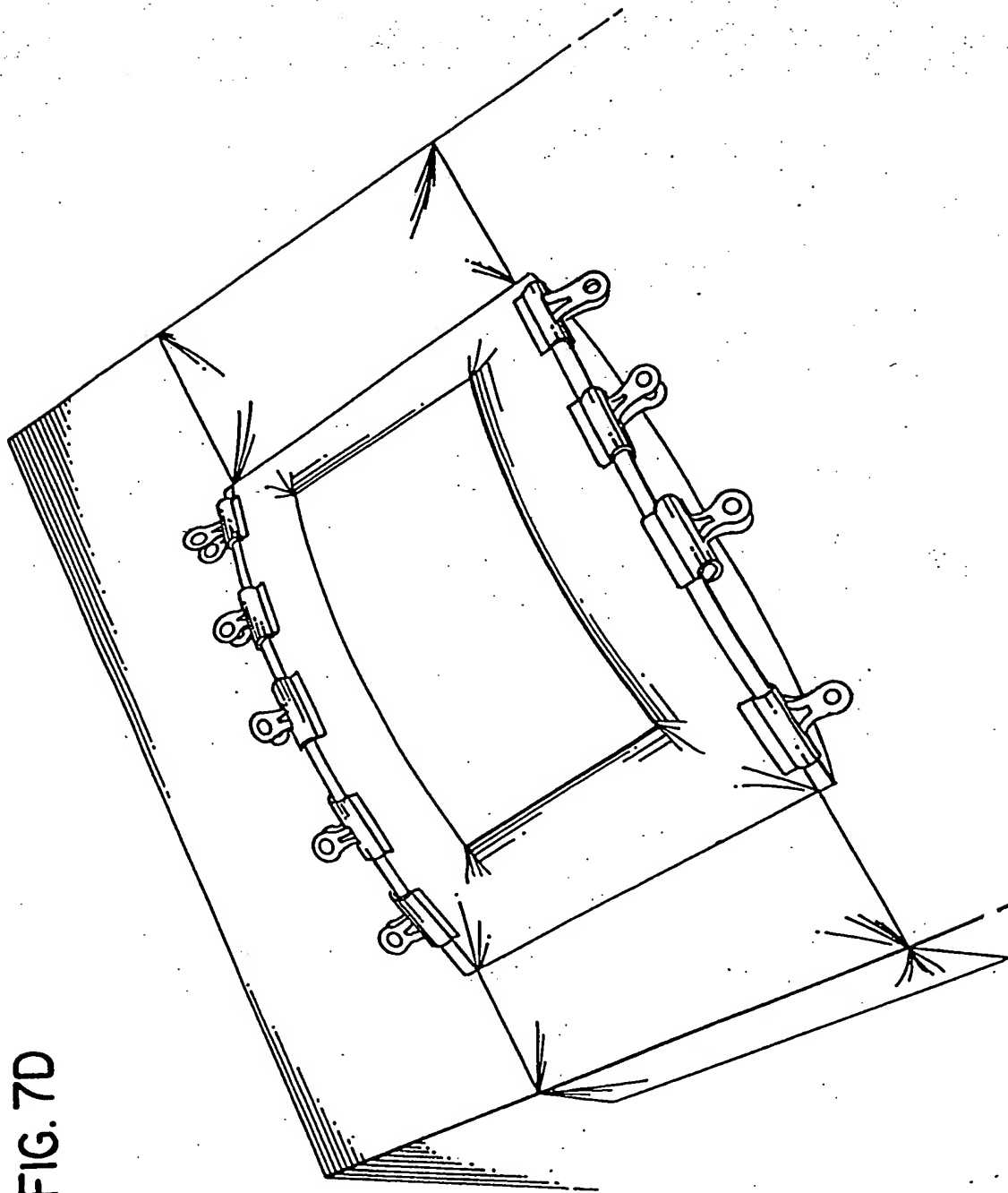


FIG. 7D